

RECENT AND PERIODICAL LITERATURE.

Andrews, Roy Chapman. *On the Trail of Ancient Man.* G. P. Putnam's Sons. New York. 1926. Pp. 375.

THIS book is described as "a preliminary record of the field work of the Central Asiatic Expedition of 1922, 1923, and 1925." It is a thoroughly competent and entertaining piece of popular writing, which is all it professes to be. The photographic illustrations are admirable, and from the ethnological point of view probably the most interesting part of the book: the relatively slight contrast in type between the members of the Expedition and the Mongols they encountered, as shown in the photographs, is very striking. The geological explorations should greatly assist the work of others in the same field, such as Dr. Davidson Black, of the Rockefeller Institute, Peking, whose writing and theories on the dispersal of Primates from some Asiatic source yet unknown deserve wider recognition than they have yet received in this country.

M.O'M.

Barker, Ernest, M.A., D.Litt., LL.D. *National Character*, London, 1927. Methuen & Co., Ltd. Pp. 288. Price 10s. 6d. net.

It is difficult to say much of eugenic value that this book contains. The thought indeed, is confused, as if the author is slowly groping his way to a historical philosophy. It is encouraging to see that he does realize the importance both of race and of density of population as factors in the formation of national character. But despite much erudition and learning in other spheres, he has not studied these subjects very closely one gathers. Madison Grant appears to be his main authority on the racial stocks in England and Europe. The physical characteristics, as laid down by this writer, of the Nordic, Mediterranean, and Alpine strains are accepted; and Dr. Barker also seems to think that they are the sole characteristics of race. "Spiritual" qualities he puts into another sphere altogether. It requires much biological training to discuss the effects of climate in moulding the English character. That character is firstly defined rather as one would expect it to be defined for the popular daily reader, only Dr. Barker's language is more flattering to the self-esteem of the reader. An attempt is next made to discover the cause of that character in the psychological reactions induced by a temperate and variable climate. But the author is frankly puzzled when he points out, most justly, that the national character of Australians is essentially English though their climatic environment is extremely un-English. He suggests that this is because there have not yet been many generations of Australians; yet he still misses the clue to the real effect of climate upon national character—lethal selection. Whatever their original racial stock, our ancestors have for many generations been subjected to a rigorous climate—so rigorous that with a birth-rate of not less than 30 per 1000 living it took the population 200 years to multiply by three. Certain qualities

must possess high survival value; and the existence of those qualities thus selected entitles one to speak of an "English race"—a term which Prof. Barker will not allow, since he maintains that we are composed of a "blend" (!) of Nordic and Mediterranean. That two—or possibly more—original stocks first populated this isle is perfectly true. Clearly, too, they are still differentiated in many important particulars, mental and physical. But in the most important qualities of all, those that confer survival value, they must by now approximate fairly closely.

Whilst making a praiseworthy effort to adjudge fairly the roles played by heredity and environment, Prof. Barker is still not happy. He views them as outside forces tugging in opposite directions at the quiescent race or individual in the centre. He has not grasped that an organism is the resultant of the interaction of those two elementary and complementary factors, even when a variation in one appears to be solely responsible for a variation in the organism—e.g., National unity is in his view a "spiritual superstructure" erected by nurture alone on top of a racial foundation for which nature is solely responsible.

E.M.

Bjerre, Andreas, Doctor of Laws. Translated by E. Classen, Ph.D. *The Psychology of Murder*. Longman, Green and Co., 1927. Pp. 164. 9s.

THE late Andreas Bjerre was appointed Professor of Criminal Law at the University of Dorpat in 1919, and to the Chair of Legal Philosophy in 1921. He devoted many years of his life to the study of criminals in Swedish prisons, and the present work is based on his investigations in the Central Prison at Langholmen, Stockholm.

The author states his belief that the determining factor in all crime is a general unfitness or incapacity for satisfying the demands which life imposes upon one and all, irrespective of social environment or other external conditions. He holds that this general unfitness is found among murderers in various forms which are all means of escape from the realities of life by the aid of self-deception, by renunciation—i.e., the consistent renunciation of every definite individual effort, and the assumption of an attitude of complete passivity towards everything which is not essential to the mere maintenance of animal existence; and by an attempted conformity with all the practical rules of life and the moral standards of their environment, by which he says they sneak through life in a sort of sham life. This thesis is developed in three chapters on self-deception, anguished fear and shamming, in which the author investigates three homicides whom he regards as typical examples of their class. These men were serving life sentences, and appear to have been examined long after the commission of their offences, and subsequent to serving a preliminary period of three years solitary confinement.

Many of the author's findings may be due to environmental psychoses following upon the prolonged artificial solitude to which the prisoners were subjected as part of their imprisonment. And insufficient importance appears to be attached to the marked suggestibility of perhaps the majority of pathological offenders, which often makes it a difficult matter to decide whether the findings are not actually prompted by the examination. When also one of the cases is recognised to be a persistent liar, and the author states "it was consequently through his lies that I had to penetrate to the central weakness in his psychic life," the reader may be pardoned if he questions the result of the analysis. Moreover, physicians who have lived in daily contact with criminals for many years appreciate the marked difference in their mental reaction before and after conviction, and recognise how important it is to study the psychological antecedents of a crime as soon after its commission as possible. When, as in the cases described, years have elapsed and self defensive mechanisms have matured, the most patient investigation may throw little light upon the psychology of the crime itself.

The book may perhaps unintentionally suggest to the layman, that cases of murder usually present abstruse psychological problems for elucidation. Experience does not support this, and in order to understand the naked primitiveness of many homicidal crimes the issue must be kept clear. It is, however, plainly the earnest work of a zealous observer who rightly regards the study of individual cases as of first importance, and should prove of interest to the student of abnormal types.

W. NORWOOD EAST.

Coutts, Rev. John W., M.A. *The Church and the Sex Question*. London, 1927. James Clarke and Co., Ltd. Pp. 295. Price 6s. nett.

THIS is a book about the Christian ideal for life and marriage by a Christian minister, but there is no "sob stuff" in it. It deals with the most intensely emotional

aspects of life, but it is singularly successful in avoiding sentimentality. The reading of even a few pages will convince anyone of two facts—firstly, that the writer is well versed in the best literature of the world, and secondly, that he brings to this subject a mind singularly capable of taking balanced and sober views. These qualities in the writer make the reading of his book delightfully easy. Further he is entirely free from that false shame and that nervous timidity, which so often make books on this subject by clerical writers almost offensive. In fact Mr. Coutts brings culture, courageous honesty, and a great gift of fair-mindedness to his task. The result is a really dignified and weighty contribution to a pressing question.

The chapter entitled "Sex" constitutes the real core of the book. The complete break up of the Victorian attitude to the whole subject is first described, and it is suggested that four factors explain this change of mind. Firstly, the Feminist Movement, secondly, the report of the Royal Commission on Venereal Diseases, thirdly, the war, which brought to many women experiences of co-operation with men in the work of the world, and lastly, the influence of the New Psychology. A situation has thus arisen in which it is essential that the Christian attitude should be restated, and to this Mr. Coutts addresses himself. Insisting that it is necessary to get back past the church to Jesus Himself, he repudiates wholeheartedly the suspicious regard in which the body was at one time held, and the suggestion that the celibate life is intrinsically higher than wedded life. His positive position may be gathered from the following sentences, "If it (sex) is a God-given ordinance for human life then it must be capable of treatment in such a way that its terrific urge can be used for growth in sonship to God: it must be capable of making positive contributions to the life of the spirit. This implies that all merely negative and repressive handling of it is fundamentally wrong and unchristian."

The Christian way of treating it does indeed involve much self discipline and at times the acceptance of a cross, but this is not because sex is regarded as in itself an evil, but because it is through these sometimes stern ways of life that it may be brought to yield its true gifts.

Further still it is insisted that in the Christian position there must be a combination of a rigorous ideal with a limitless forgiveness and a divine compassion. This will seem to involve a contradiction only to those who do not understand what forgiveness is. Probably it is just in its power to combine these attitudes that the great contribution of Christianity consists.

When Mr. Coutts goes on to discuss how the Christian attitude may be enforced he has a great deal to say about wholesome education in the home, about the part that might be played by teachers, doctors and ministers, and about the general witness which the church might maintain on this whole matter. A closing passage in this section is worth quoting in full. "In the church of Jesus, when it is true to Him, there will be no harsh condemnation for the lad who has not learnt to resist the lure of sex, only sympathy and the effort to teach him control, and the regaining of his manhood: there will not be no excommunication for the unmarried mother, or blight upon her innocent child; rather a desire to understand and to make the burden easier to carry; no stones for the woman taken in adultery, but instead a compassionate endeavour to help to mend three broken lives, and where there are children, to shield them from the worst consequences of others' wrongdoing."

Seldom has the positive Christian truth about this subject received a more adequate dignified, and luminous expression.

When he passes on to speak of marriage, divorce and birth control, Mr. Coutts is necessarily on more debateable ground.

In his chapter on marriage three things stand out, firstly, his insistence that while "The element of illusion in romantic love" is sure to pass ere long, what remains is the real substance of marriage, and is capable of growing into a mutual experience which will crown life. Secondly, the force and consistency with which he holds to the position that the real key to the solution of many difficult questions in connection with marriage is to be found by concentrating one's attention on the rights of children, and thirdly, the outspoken way in which a few strong and wholesome things are said for the guidance of men and women in the conduct of those intimacies which lie at the heart of marriage, and which must be harmoniously and even joyously arranged if life is to be healthy and happy.

To many English readers the chapter on Divorce will bring surprises. For this Christian minister is entirely free from the dogmatic presuppositions which so often make the discussion of divorce by clerical minds entirely useless.

He is quite clear that this large question cannot be finally settled on the basis of one isolated saying of Jesus, "Nothing is ever gained for religion by pushing single utterances of Jesus to the point at which they become absurd in their working." From that starting point this author goes on to attempt to deal with the whole question in a truly Christian spirit. He sees quite clearly that there are cases in which a marriage has in moral truth dissolved itself . . . and then to quote his own words, "There is no interest of either morality or Christianity served by saying that marriage is indissoluble and that two people must be tied together for life when one has ceased to desire it and the other has ceased to hope that the union can ever again have real spiritual significance." Or again, "The Christian community ought not to be able to tolerate the spectacle of one of its members indissolubly linked with a moral corpse." Further he is very clear that it cannot be right for Christian people to attempt by the power of law to force their own views about divorce on those who do not share their fundamental religious convictions.

And yet the most valuable contribution in this chapter is, I think, the power with which the duty of the whole Christian community is enforced in relation to people whose marriages may seem to be in danger. So much may be done by really sympathetic understanding to help people after all to save their marriages, that the Christian community might if it could be true to its own genius, do a great deal to lessen the work now laid upon the divorce courts. "Divorce is very uncommon among practising Christians at present; it may safely be asserted that with a closer scrutiny of the claims of those who seek the blessing of the church upon their marriage; with a more faithful use of the Christian methods of reconciliation, penitence and forgiveness between those who err; and with the proper aid of the Christian community exercising its true function as mediator, assessor, and when necessary judge of its members, it would be practically unknown." One may venture to express the view that that passage suggests a far more hopeful method of advance towards the real solution of the problems which now lead to the divorce courts than all the suggestions taken together of those who cry out loudly for a general loosening of the marriage bond.

In his chapter on Birth Control after a quite frank exploration of the whole subject Mr. Coutts asks leave to bring in a verdict of "Not Proven." In other words his own mind remains open but as yet unconvinced either way. And yet this does not mean that the chapter is without constructive value. On the contrary a great many illusions which darken counsel on this subject are most effectively dealt with, and the claim is clearly voiced that the Church must face the task of giving counsel to her members, many of whom are sincerely perplexed at present. What causes Mr. Coutts to hesitate about any final decision (after saying many things which have led the reader to expect a modified verdict in favour of the use of contraceptives in certain specified conditions) is the justly well known article in the *Hibbert Journal* for January 1924 by the Master Balliol and his wife. That article expresses a grave doubt about the use of contraceptives based on "The aesthetic element in Christian morality," and Mr. Coutts has served his readers well by drawing fresh attention to it. Having myself read a great many discussions of this subject, many of which evade the real issue, others of which show almost incredible ignorance of the actual facts which lend urgency to the question, and others again which merely darken counsel by the blunt use of dogmatic assertions, I can with confidence recommend this handling of the subject as one of the sanest and most illuminating now available.

With an interesting and weighty chapter on the church and its Discipline, Mr. Coutts brings his able and statesmanlike book to a close.

A. H. GRAY.

Cons, George, B.A., F.R.G.S. *Racial Superiority*. London, 1927. The Book Centre, Friends House. Pp. 12. Price 8d.

THIS is quite a wholesome little pamphlet demonstrating how slender is the scientific, as against social and practical evidence in favour of the racial superiority of the white man. Ardent "race-mongers" and Nordic enthusiasts should read it. The author, on the other hand leans too far in the other direction, implying rather than saying that the mental and temperamental differences between the whites and the coloured races are negligible. The scientific value of the pamphlet is rendered suspect by the too obvious desire in the last paragraph piously to emphasise the "brotherhood of man" and the "Love of Christ in which all races live." One

would like to know more, too, of the prominent supra-orbital ridges which Mr. Cons says the Australian white is now developing in common with the "black-fellows." Other assertions are equally doubtful; and Mr. Cons ought to be clearer in his own mind as to what he means by such phrases as "adaptive response" to environment and "racial suicide."

E.M.

De Montgomery, B. G. *Issues of European Statesmanship.* London, undated. George Routledge & Sons. Pp. 278. Price 10s. 6d.

THIS book is a complacent effort to set the world to rights, made by a writer who has not troubled to read the works of others or to master the elementary facts of the problems he treats. For instance, "We have definite proof that in the long run wealth grows faster than the population." Again, ". . . it has not been proved that the qualities of the exceptional man are inherited by his descendants. On the contrary, we have seen many examples of the descendants of a genius being mentally deficient, and of the descendants of quite ordinary people being possessed of the faculties of super-men. Moreover, some of the most eminent men and greatest geniuses have been physically and even morally defective. . . ." But Mr. De Montgomery has apparently no doubt about the rigidly hereditary character of crime, and he also refers to "dangerous and hereditary diseases, such as syphilis. . . ."! Needless to say, the conception of civilization as a counter-agent of natural selection is never grasped at all. The issues of European Statesmanship are more complicated than Mr. De Montgomery thinks.

E.M.

Ellis, Havelock. *The Task of Social Hygiene.* London, 1927. Constable & Co. Pp. 414. Price 6s. net.

THIS is a new edition of a book which was first published in 1912, and reprinted in 1913, 1914, 1916, and 1922. The public will be glad to have this handy edition. Seven volumes in all are out.

Despite the interval of fifteen years, and the occurrence of the Great War, the author, in his new Preface, tells us he finds his work far from antiquated, although part of his programme has been carried out, and notably in regard to women's suffrage. One third of the book is occupied with this subject. He finds that in Germany women are saying "The home is our sphere, it is true. Love and marriage, the bearing and the training of children—that is our world, and we intend to lay down the laws of our world." What he has to say about "new forms of romantic love" have certainly not become antiquated since he wrote them. He quotes Tarde as predicting that "When masculine energy dies down in the fields of political ambition and commercial gain, as it already has in the field of warfare, the energy liberated by greater social organisation and cohesion may find scope once more in love."

Our author next expounds to us the correct way of understanding the birth-rate figures. The public are beginning to understand them better than they did when he first wrote. Naturally he ridicules the people who rush into speech and print, with scares about the "empty nursery." In fact he thinks a world with very few people indeed in it is necessary for a life which he would enjoy or appreciate, though he is well aware that the inhabitants would have to be not only few but fine. He has a very short chapter (VI) on Eugenics and Love, ending with a long and interesting note about Life History Albums, which we ought all to keep for each one of our children. Then comes Religion and the Child. The material is culled from many sources, including the Cambridge Anthropological Exhibition to the Torres Straits. Of the child, our author says "On the one hand he demands the key to an imaginative paradise which one day he must leave, bearing away with him, at the best, only a dim and haunting memory of its beauty. On the other hand he possesses eager aptitudes on which may be built up concrete knowledge and the sense of human relationships, to serve as a firm foundation when the period of adolescent development and discipline at length arrives."

Our readers probably know Mr. Ellis's important work "Studies in the Psychology of Sex." In this volume he deals at some little length with legislation on the subject, but he holds that "teaching of sexual hygiene, if wisely carried out, will effect far more for public morals than all the legislation in the world." We are not sure that the verdict of history will endorse what he says in the chapter, "The War Against War," about ourselves—"The result is that the English (except

sometimes when they happen to be journalists) cannot now be described as a war-like people. Old legends tell of British heroes who, when their legs were hacked away, still fought upon the stumps. Modern poets feel that to picture a British warrior of to-day in this attitude would be somewhat far-fetched." "Those reckless Englishmen who boldly sailed out from their little island to face the Spanish Armada were long ago exterminated; an admirably prudent and cautious race has been left alive." We wonder rather that he left the chapter in the book. A good deal of study has been given to the contest with the Spanish Armada, since 1918, and the business of Drake with his far superior guns seems to us a "prudent and cautious" affair compared to most of what the clerks and factory hands of our cities were called upon to face and so lately do, at places like Paschendale.

He has a chapter on An International Language and an International Coinage, the latter anyone would enjoy handling, when presented for example, with the clipped paper currency of Greece to-day, or the filthy little crumpled objects one receives in the lower denominations in that country.

He concludes with twenty-five pages on Individualism and Socialism, which make a wonderfully balanced and illuminating statement, at the end of which he lets himself go in a passage which will bring a good deal of satisfaction to eugenicists — "Poets and prophets, from Jesus and Paul to Novalis and Whitman, have seen the divine possibilities of Man. There is no temple in the world, they seem to say, so great as the human body; he comes in contact with Heaven, they declare, who touches a human person. But these human things, made to be gods, have spawned like frogs over all the earth. Everywhere they have beslimed its purity and befouled its beauty, darkening the very sunshine. Heaped upon one another in evil masses, preying upon one another as no other creature has ever preyed upon its kind, they have become a festering heap which all the oceans in vain lave with their antiseptic waters, and all the winds of heaven cannot purify." . . . "By how fine a flash of insight Jesus declared that few could enter the Kingdom of Heaven! Not until the earth is purified of untold millions of its population will it ever become the Heaven of old dreamers, in which the elect walk spaciouly and nobly, loving one another. . . ." It is this sense of a prodigious amount of lee-way to be made up that makes him conclude "we cannot have too much Individualism, we cannot have too much Socialism." J. C. PRINGLE.

Estabrook, Arthur E. and McDougale, Ivan E. *Mongrel Virginians*. Baltimore, 1926. Williams Wilkins Co. Pp. 205. Price 18s. 6d. English Agents, Baillière, Tindall & Cox.

THIS is a study of a group of people of mixed blood numbering about five hundred who live in Virginia. The ancestry of these people has been worked out in great detail beginning at the end of the eighteenth century. They are traced back to a cross between white and Indian. Negro blood came in at a later date. The study has been carried on from the point of view of both sociology and genetics.

The original white stock seems to have been sound. Later white admixture has been from poor stock. The living descendants are "below the average mentally and socially." They are unenterprising and thriftless. Their sexual morals are lax. From a sociological point of view they form a low group. Indian traits appear to be dominant. This is shown both in physical characteristics and in lack of musical talent. Again temperamentally they are Indian rather than negro. Their fecundity is high. There has been much interbreeding. There is little evidence of alcoholism, or of venereal disease. The incidence of tuberculosis is high. They shew up badly in intelligence tests.

There is much interesting data in the book but the paucity of anthropological measurements is regrettable. The price of the book is very high.

A.M.C.S.

Fleure, H. J. *The Characters of the Human Skin in Their Relations to Questions of Race and Health*. Oxford University Press, 1927. Price 2s. 6d. Pp. 82.

THIS is the first of the Malcolm Morris Memorial Lectures which are organised by the Chadwick Trust. It is a careful study introductory to what now bids fair to be a branch of research of absorbing interest; namely, the degrees in which the different races show immunity or reverse to certain diseases. Professor Fleure starts from a careful statement of the physiological facts which put the metabolism

of the skin into its proper setting. He compares carefully the skin's structure and hair-growth in the higher anthropoids and human races, in the embryological as well as the adult condition. Later he turns to a distribution of human races and hazards suggestions as to roads by which these have reached their present distribution. In regard to the Nordics, he is of opinion that loss of pigment occurred relatively late under conditions of climate similar to those now obtaining in Northern Europe and Siberia. Towards the end of his lecture, he further indicates that he regards the skin character of true Europeans has caused them to be ill-adapted to the tropics.

His main contention is that the characters of skin and hair are in some degree an indication of general constitution and especially of the mechanism of heat-regulation and that they are connected not only with the action of certain climates but with resistance to various diseases.

C.B.S.H.

Gurwitsch, A. *Das Problem der Zellteilung Physiologisch betrachtet.* Berlin, 1926. J. Springer, Pp. viii+222. 74 figs.

THIS book has no very direct interest for Eugenists. It is concerned with the experiments of the author and his students upon cell-division. These experiments are very remarkable. Gurwitsch claims that he has succeeded in inducing cell-division (in plant root-tips—a convenient material) by rays emanating from other organisms, whether plant-bulbs, young tadpoles, mashed-up embryos, &c. Only certain regions in the inducing organisms are stated to generate the *mitogenetic* or division-inducing rays. The author then exposes a number of general considerations arising out of his experiments.

If the main facts are corroborated, Gurwitsch has certainly made a remarkable discovery, whose bearings may be very important. The discovery, however, is such a strange one, and so difficult at present to link up with other biological facts, that it is no disrespect to the author to say that independent confirmation is essential. Up till the present, this has not been forthcoming. However, the publication of the present volume should stimulate biologists to take up the important problems involved.

J.S.H.

Hollingworth, Leta S., Ph.D. *Gifted Children, their Nature and Nurture.* New York, 1926. The Macmillan Co. Pp. 374. Price 8s. 6d. nett.

THIS is a well-written and interesting summary of the present state of knowledge as to the existence, frequency, origin, development and training of high intelligence. There is little in the book that has not hitherto been on record, but it is well worth while to have put together in a single volume a great mass of scattered information. And where Dr. Hollingworth does draw conclusions of her own from the facts presented, her arguments are reasonable and cogent. In the chapter on Family History of Gifted Children, there is a section entitled 'Eugenics' which deserves the attention of readers of the 'Eugenics Review.' "Positive eugenics finds difficulty in supplying a motive that will induce intelligent persons to produce large families." A psychological study of the motives governing parents of gifted children is recommended, if there is to be any hope of increasing the birth-rate among them. Perhaps, however, an explanation in five pages of the principles of heredity, which occurs in the same chapter, is out of place, or at any rate out of scale, in a book of this kind. Her concluding chapter on the social-economic implications of the facts contained in the book is very suggestive; stress is rightly laid on the social importance of knowing, as we do, that in all mental tests the two sexes achieve almost absolutely equal results. Who would have believed this a hundred years ago? Also, all who have given any attention whatever to the study of individual differences in intelligence will be grateful to Dr. Hollingworth for her rebuke of Mr. Bertrand Russell. His statements that "under socialism I shall hope to see learning so common that it would be unregarded," or that "every boy and girl would be given as much education as the authorities judged desirable," are the kind of nonsense that could hardly survive an intelligent study of the facts concerning intelligence and its distribution.

Dr. Hollingworth outlines the childhood and school-life of twelve children of I.Q. 180 or over; and she suggests more helpfully than previous writers, such as Terman, the right adjustments between these exceptional children and the school, where misfit and consequent unhappiness are so likely to occur. She also describes

the work of "Special Opportunity Classes" in New York for children with very high intelligence. England is behind America in this respect. (*See Note*). Her section on leadership should be read. It concludes from the evidence that children follow the lead of a child more intelligent, but not too much more intelligent, than themselves. Average children (I.Q. 100) will generally have as their leader a child of I.Q. 115 to 130. A child of I.Q. 160 will almost certainly not be the leader of an average group, but may well lead a group averaging I.Q. 130. "J," with I.Q. 190, had attention called to him because of his isolation from the play-life of his primary school. Transferred to a "Special Opportunity Class" where the average I.Q. was 164, he soon became the acknowledged leader. This theory of leadership is new to the reviewer, but it offers a good experimental explanation of certain facts that have come to his notice both in schools and elsewhere. If it is verified, and it should be possible to test, it seems to be of great social and political importance.

J. F. D.

*Dr. Hollingworth has expressed with great clarity the facts and theories connected with our present knowledge of the subject in hand, and has written these in such a way that the book may be readily appreciated by those of the general public who are interested in this field. The author's own findings constitute one of the most valuable foundations of the text, and we would further draw attention to the admirable list of authors cited in and appended to the work.

The author takes as a standard for the gifted those lying in the highest one per cent. for general intelligence, and instances the fact that children of Anglo-Saxon and Jewish parentage and descent in the United States comprise nearly the whole of this one per cent.

In the next chapter Dr. Hollingworth satisfactorily disposes of the idea commonly held, that gifted children are physically weak, by giving data, which show that in general the opposite is the case, and indicates also that these children are less "nervous" as a group than unselected children.

From the social point of view the finding that the gifted are rated above average in traits of character, which make desirable citizens, is of vast importance to mankind.

Special talents have some mention with regard to their relation to general intelligence.

A chapter of absorbing interest and wonder is that given to a study of selected examples of gifted children testing above 180. I.Q., bringing home to the reader the very extraordinary powers enjoyed by these happy few.

Dr. Hollingworth further strongly emphasises the equality of intelligence between the sexes, and brings forward the fact of the restriction imposed upon many gifted women from the furtherance of their personal ambitions by marriage and child rearing, factors which are now being successfully dealt with by many married women of intelligence.

Summarising the work as a whole, Dr. Hollingworth has ably gathered together the knowledge of gifted children as it stands at the present day, in a comprehensive manner, which should be of advantage not only to eugenicists but also to those members of the public who are interested in education and the country's welfare. Valuable hints are given, which should help educationists not only to realise the nation's duty to the highly intelligent, but also the difficulties in the way of a satisfactory method of approach in their education to a proper realm of usefulness, and some tentative schemes for the solution of these obstacles are also put forward.

H. MACDONALD.

NOTE: Our reviewers do not seem to be aware that (in the South of England at least) a considerable degree of differentiation in treatment exists for the more gifted groups of children. In nearly all the Schools of any size parallel forms are arranged where, camouflaged by less invidious names than "retarded" and "gifted" (such as Form V—Form Vb. or "Remove" and so on down the School) specialized instruction and curriculum obtains. In addition to this the "choice" of Schools possible has given rise to considerable differentiation, the average standard (or

*Ed. Note:—This work is of such outstanding importance for current research that we are publishing reviews covering different aspects from two contributors.

type) of intelligence will be found to vary greatly from school to school. This is true both of elementary, "Grammar" and "public" schools.

C.B.S.H.

Holmes, S. J. *An Introduction to General Biology. Life and Evolution.* New York, 1926. Harcourt, Brace & Co. Pp. 449, figs. 227. Price 12s. . nett.

PROFESSOR HOLMES is already well known as a writer on biological and eugenical subjects. The present book is intended as a text for general university students taking up biology, but "it is hoped that the book may prove useful also to the general reader who may be curious in regard to the content and import of modern biology." It may be said at once that both these functions are admirably fulfilled. The book is divided into eighteen chapters, the earlier chapters being taken up with the orthodox topics for an introduction to biology, such as the differences between living and non-living, the nature of protoplasm, cells and cell division, tissues, micro-organisms, the green plant, embryonic development, social development among animals, parasitism and regeneration. While the illustrations are, for the most part, taken from previous works, yet the subjects are treated with a freshness of recent examples as well as a judicious reference to historical incidents and a breadth of biological knowledge which should make the book attractive to the general reader.

The later chapters are concerned with heredity and evolution, in which the various classes of evidence are clearly set forth and the more recent developments discussed. It is to be hoped that this book will be widely read by American fundamentalists, for it is impossible to believe that any unbiassed mind could read it without great enlightenment on evolutionary and other biological problems. The last chapter, entitled "the eugenic predicament," sets forth the salient facts which bear on racial improvement or decay and forms a fitting conclusion to a work which deserves to be widely used.

R.R.G.

Kerr, R. B. *Is Britain Over-populated?* Published by the author, 97, North Sydenham Road, Croyden, 1927. Pp. 118. Price 1s. nett.

THIS little book is an encyclopaedia of useful facts and figures, and it is a strongly expressed argument for the quantitative control of population. Particularly valuable for its clarity is Mr. Kerr's argument that it is the output per man, not per acre, which should be the true economic criterion. The qualitative aspect of population is glanced at, though a little hastily, in considering migration. Mr. Kerr, too, does not realise that the place of every emigrant will automatically be taken by a baby. He also attaches too much value to the "poverty line" of Booth as an indication of real malnutrition, and appears to think that the 1913 degree of poverty still exists in 1927.

An advocate of birth-control and of small populations, rather than a scientific adherent of the doctrine of Malthus.

E.M.

Lloyd, Thomas. *An Inquiry into the Causes of the Growth and Decay of Civilization.* London, 1926. Office of *The Statist*. Pp. xiv., 859.

How this vast volume came to be published is a mystery not sufficiently explained by the statement that its author is 'the late Editor of *The Statist*.' It is composed of inaccurate history, questionable pre-history, elementary economics, conventional ethics, shallow politics, and platitudinous reflection, and is bloated beyond human endurance by continual repetition. It is well printed but devoid of an index. To gauge the author's style and mentality a single quotation will probably suffice (p. 361): "The condition of Parliament and the constituencies being such, I deem it a duty to point out ways in which, I venture to think, in the very early future, a great advance may be made towards establishing a state of things in which the real interests of the whole community may be preferred to that of any class or any coterie." Fortunately for the purposes of this review, however, there is only one reference to eugenics in the whole book (p. 181), and that does not go beyond stating that there is "degeneracy in our lowest slums," and that the more desirable populations, are "not increasing as rapidly as the less desirable." It seems fair to conclude that the importance of this work is not commensurate with its size.

F.C.S.S.

McKerrow, J. C. "*Economics for Nicodemus.*" Longmans, Green & Co., Ltd., London, 1927. Pp. 58. Price 2s.

THE author of this little book on poverty and wealth starts out from the point of view that economics differs to-day from economics a couple of thousand years ago. This is probably the first misconception which leads him to a number of curious conclusions. Most of us would regard economics as being a number of elementary principles underlying social structure and no more changeable than are the problems of evolution in the different eons of geological time.

Mr. McKerrow's theories lead him to formulate a curious ideal. He seems to regard poverty as bad. He seems also to regard great wealth as bad; that is, great individual wealth, and he would like to see a society instituted in which great accumulation of private wealth was prevented. Indeed, he seems to stumble on what is the root trouble of all socialistic theory in not perceiving the close relation of individual effort and individual gain. And it may be noted in passing, it is not necessary to condemn all motives which are mainly egotistical, for an individual entrepreneur is not necessarily more successful than a municipal committee undertaking a similar enterprise because working for himself he works harder; his success may really lie in the fact that standing alone and being solely responsible, he is hampered neither by the want of insight of his collaborators nor by their indecision and want of the will to risk a gamble.

The book is not to be recommended as one which gives sound guidance in the bases of economics, but it is certainly thought-provoking and original.

A few sayings may be worth quoting. Page 47, "I still prefer to live under the injustice of the rich than trust society to the injustice of the poor." Mr. McKerrow hopes that if we could succeed in making riches "taboo," we should prevent the bitter war between rich and non-rich, employers and employed, capital and labour; and yet not affect the wholesome competition for a living which is the spice of life as well as the necessary condition of our not degenerating. Mr. McKerrow falls into some errors on population problems and follows those facile talkers who believe that to be comfortably off is necessarily to be biologically infertile and he further is convinced that the mass of the poor could become far more productive economically if the rich were less rich. On page 53 he says—"The proposed change of custom would affect this disproportion of the fertility of rich and poor directly and spontaneously."

Further on, he makes another observation of interest:—"The rich are tempted to play Providence, but it is a dangerous game best left to Omniscience and Omnipotence." Mr. McKerrow seems to believe (and this is probably a valued criticism for the whole of the book,) that any group of individuals directing their contemporaries when in that position of eminence which we call the "State," will be endowed with superhuman capacity.

C.B.S.H.

Ogden, Robert Morris. (Cornell University). *Psychology and Education*. George Routledge, London, 1926. Pp. xiii + 364. Price 12s. 6d.

THIS volume is dedicated to Kurt Koffka, and the writer endeavours to bring some of the newest conceptions of current Psychology into relation with teaching problems.

Like so many other educational or quasi-educational works of the moment, this volume is useful in putting the teacher in possession both of facts concerning the nature of human behaviour, and of current interpretation as to process put on these. In this sense from the psychological point of view it fulfills its purpose, and in the main, does this with clarity and with truly scientific insight, but like almost all other education writers to-day, vision, imagination, and purpose (in other words, a true understanding of the end and aims for which education in the best sense exists) are wanting. No writer of to-day, except possibly Campagnac and most unmistakably Keyserling attempt this latter task.

Perhaps the curious position of educational ideals is best emphasised by the very fact that so many writers venture into this field quite devoid of any sense of human objective. From the Eugenic point of view the value and interest of this work is the sense it gives of Psychology and mental process as being one side of biological function, and not as older writers contended, a side of human life, apart and cut off from all natural law or living function.

Heredity of course, will not come into its own in human life until these old preconceptions are swept out of the way.

C.B.S.H.

Nyëssen, Dr. H. J. *The Passing of the Prisons. Anthropography of Terpia.* The Hague, 1927. Martinus Nygoff. 295 p., with 6 plates.

THIS book gives a critical historical survey of anthropological study in the Netherlands and includes in the same time a comparative examination of the skulls buried in the terpia of the provinces Frisia and Groeningen with the head form of the actual habitants in those regions, Friterpia and Groterpia.

There existed a great difference between the old Frisian and Groeningen Terpians. The Nordic type was more strongly represented amongst the former, while in the Groeningen terps is buried a type which shows a much greater mixture with brachycephales. In later times brachycephales have also penetrated in Friterpia, mainly through the towns and comprise actually already one fourth part of the populations in this region.

As the interesting volume of Dr. Nyëssen which contains many suggestions for further research, has been written in English, it is not necessary to give here more details. But in this EUGENICS REVIEW I will not omit to cite the words written p. 223: "Without more intense anthropological research, a true insight into the problem of eugenics is pretty well non-existent. We feel convinced that in the near future this science will bring about an entire change in the general view of life and arouse an interest for anthropological studies in wider circles."

M.A.V.H.

Sturge Gretton, Mrs. M. *Some English Rural Problems.* Students' Christian Movement. London. 1927. Price 4s. Pp. 128.

THIS very interesting little book is written with all Mrs. Gretton's characteristic charm and wonted discursiveness. This remark conveys our main criticism. It has the great value of being written by someone who knows the rural problems of the middle South of England through and through, for her knowledge is not only a first-hand study of conditions to-day, but is qualified by an unusual depth of insight into the conditions of the past.

The authoress calls attention to what she names the urgency of the present situation. Village life is changing economically and socially and it is also changing biologically; in fact, the country district which she describes is in small as much in the melting-pot as the United States are today in large. In the first half of the book, she makes some interesting comments on the early static condition of English village life and then goes on to describe the changes and migrations brought about by the railway. In her last chapter, she lay stress on the tremendous change brought about since the war and your reviewer would comment that some of the most far-reaching of these changes are not due to the war, though accelerated by it, and are consequent on that bloodless revolution which really began 30 years ago and of which the effects are more patent in the village than in the town. The natural leaders of the village are gone. The social and economic focus of village life has been obliterated. The Lord of the Manor and the Squire are no more, the parson has lost his hold. The effect of this on the young people is obvious in every village lane.

For eugenists, this book has great interest in supplying a great many valuable facts which are not easily come by elsewhere, while of the humanitarian may feel concerned by the urgency of the need in villages for a new focus of interest in social life and for a civilizing influence which may be as effectual as the old, dressed in democratic guise. The student of populations and of national quality needs to have his attention called to curious rural migrations and the constant circulatory movement going on in country areas, movements so subtle, they are only made clear by the fact that the school teacher has to face the influx of new pupils each year to the tune of one-third of his whole numbers.

C.B.S.H.

PAMPHLETS.

Allen, Grace. *The Families Whence High Intelligence Springs.* New York, 1926. Eugenics Record Office. Pp. 39.

WERE the author's enthusiasm less, and her adjectives more moderate, this might be a very useful study of the inheritance of good middle-class ability on the same lines as Terman's "Genetic Studies of Genius." The 48 families (embracing 2,800 individuals) of 49 children with high scores on the Stanford-Binet Test were investigated. Most were Jewish, and cannot therefore be taken as representative

of Gentile populations; and most were so recently settled in the United States that the pedigrees could not be traced far back nor proper contrasts drawn between conditions in Europe and America. The chief fault of the study, however, is the use of that now much abused word 'genius' with all the consequences that spring therefrom. Even Dr. Davenport is hypnotised into a lyrical preface about the "lavish display of I.Q's of 190, 185, 180, 175." So Miss Allen, conscious that such geniuses or near-geniuses *ought* to have distinguished relatives, is driven to such descriptions as the following: "Distant relative of father's family was once Mayor of Leith"; Mother's father "was a book-seller in South Shields, England, and was, by nature, a student. He had the reputation of being the most scholarly man in the Town"; Father's sister "has published one book which has been popular"; Father's mother's father, "band master in the French Army."

All this is fully worthy of "Punch." There is no hope for eugenics in practical politics until its devotees acquire sufficient sense of relative values and of humour to avoid giving such opportunities to the satirists. How would Mr. G. K. Chesterton or "Gadfly" of the "Daily Herald" treat these quotations?

Prof. Terman is really to blame for his original classification (without reference to the test of life) of I.Q's over 140 as "genius or near genius." Intelligence Tests no more test genius than a 6-inch hurdle tests a greyhound. If they did, we should have to rank these superior children with Shakespeare, Cromwell, Bach, Marlborough, Newton, etc. But they can test the differences between more normal mortals; and it is extremely probable that these particular children will closely parallel the records of small successes of their relatives. A Mayor of Leith is certainly well above the normal, but he is not a genius, nor even necessarily of "high intelligence"!

E.M.

Some thoughts on the Social Aspects of Eugenics, with Notes on some further Cases of Human Inheritance in South Africa. Fantham, H.B., M.A., D.Sc.

Nothing could be clearer or more concise than the little general introduction to eugenics with which Dr. Fantham opens. But he is surely wrong in stating that the population of France has begun to decrease. He gives the startling figure of £5,000,000—in a total budget of not quite £32,000,000—as the annual cost to South Africa of the socially inadequate. This is over 15 per cent. Five interesting new pedigrees are given, one covering six generations, demonstrating the inheritance of various human peculiarities:

Bi-coloured eyes.

Mongolic shape of eye orbit and eyebrows (due to a Lapp ancestress).

Haematophobia (fear of blood).

Dumbness and speech defects (linked with mental deficiency).

Twinning.

E.M.

GUIDE TO CURRENT OFFICIAL STATISTICS. VOL. V. (1926).

H.M. Stationery Office, London, 1927. Pp. 273. Price 1s.

THE original publication of this *Guide* was little short of an inspiration. Statistical work continues to grow, and the *Guide* to become more and more of a necessity to research workers each year. It requires a little patience at first to grasp the plan and method of using the *Guide*. That done, however, it is possible to find out in a few minutes all the contemporary official statistics and material that have been published on any one or more subjects, though they may be distributed about a dozen different volumes—e.g., the inquirer after National Health will be cross-referenced to the Army, Navy, and Air Force Reports, the Reports of the Ministry of Health, the Registrar-General, the Medical Research Council, etc. The details and prices of the publications mentioned are given. E.M.

REPORT ON THE STANDARD OF LIVING OF WORKERS IN VARIOUS COUNTRIES.

League of Nations—International Labour Office. Geneva, 1926.

OF all the interesting documents published after the session of the International Economic Conference of this year, there is probably none that will be of greater practical value to eugenic students of population problems than the above report on the standard of living of workers. A brief introduction emphasises the obvious impossibility of making such a comparison on any absolute standard. The work, however, has been attacked in a very careful manner, limiting the enquiry rigidly

to a few set industries, taking into account the different methods of payment and of calculation of working hours. In addition to this, an attempt has been made to study the types of expenditure most common for the chosen grades in different countries, so that the final balances do approximate to the same value, and may, one believes, be taken as an indication of the wide differences in standard of comfort, nutrition, leisure, and all that is included in the standard of living. There are three main divisions to the contents:—

1. Comparisons stating the price of labour on a gold basis.
2. Purchasing power of wages.
3. Workers' family budgets.

The figures obtained are given in detail, but for the general reader careful graphs make a rapid comparison possible for the countries chosen.

C.B.S.H.

PERIODICALS.

COMMONWEALTH, June, 1927.

The Policy of Family Endowment: For—Kenyon, Ruth; Against—Reckitt, Maurice B.

These two articles are rendered valueless as scientific contributions to this difficult subject by the preconceived ideas of Justice, social and divine, which obsess both writers. They are actuated purely by the conviction that unequal distribution of wealth is morally wrong. They adopt the sentimentalist's view of the existing amount and degree of real poverty, and both seem to think that there is 'enough for all' if only it were properly distributed. Mr. Reckitt, arguing that where God sends mouths he also sends hands, forgets that whilst a child eats from the moment of birth, it cannot produce for at least 14 years. They do not believe that family endowment would raise the birth-rate, but, being Catholics, hope that it will. Mr. Reckitt most fears the occupational system of endowment, and Miss Kenyon is openly in favour of the regular flat-rate. Neither writer ever considers the inevitable lowering both of the death-rate and of its selective action which effective endowment would bring. No attempt is made, in short, to visualise the effects upon the population, its quality and quantity.

E.M.

DIFESA SOCIALE. April, 1927.

Ferri, Professor Enrico. *Visita Prematrimoniale Obligatoria.*

Montesano, Professor Guiseppè. *Il Certificato Prematrimoniale.*

These two communications deal with the important and difficult question whether a medical certificate should be a necessary condition of the issue of a marriage licence.

Professor Ferri is doubtful on the question but appears to think it worthy of consideration. He inclines to the view that the more efficacious method of preventing the transmission of disease is by educational propaganda in school and after school, the formation of a hygienic conscience amongst the people generally, facilities for dealing with hereditary disease, and the improvement of the general social condition, especially as regards housing and food.

Professor Montesano believes that the time is not yet ripe for a compulsory medical certificate for candidates for matrimony. He holds that our knowledge of hereditary disease is still too incomplete to warrant a measure of this kind, and that measures involving compulsory celibacy are fraught with considerable danger to society. He deprecates a view of marriage which looks at it solely from the point of procreation and economics, and looks for a remedy for existing evils chiefly to the development of a sense of responsibility in the individual.

This question is too large to be dealt with in a brief note. Some of the American States have introduced compulsion, and are making an experiment which the rest of the world will watch with interest and curiosity. From the strictly biological point of view a good case could be made out for a compulsory certificate, but no matter is more delicate or touches human nature more closely than the question of marriage. Measures tending to discourage marriage may have far-reaching social repercussions—such as the increase of irregular unions and interference with domestic life. On the other hand, the propagation of hereditary or acquired disease is fraught with terrible evils which are clearly preventable. In

the present stage of civilisation it would seem that we must for the present rest content with educational propaganda, and the awakening of a hygienic conscience in this vitally important matter. Candidates for marriage must be encouraged to look to the prospects of the probable offspring, and not to be guided simply by sentiment or economic considerations. Parents must be taught to recognise their responsibility to their children.

J.A.L.

EUGENICAL NEWS.

Vol. xii. Jan., 1927.

Douglas P. Murphy gives a chart showing the inheritance of Koilonychia, a deformation of the nail characterised by concavity of the dorsal surface. There is as yet not enough evidence to enable anything to be said about the mode of inheritance.

It is stated in a note that a recent tabulation of the records of the New York Hospital Training School for nurses, classes 1878 to 1910 inclusive, shows that of 673 graduates, 301 or 45% are known to have married. Data collected previously by Popenhoeff showed that under 50% of the graduates of nine schools for nurses had married. Since nurses are a selected body, the fact has genetical significance.

March, 1927.

Dr. F. O. Butler in the course of a review of sterilization in California stated that judging from case histories no physical or mental ill effects follow upon the operations. On the contrary most of the patients show improvement.

March, 1927.

Reference is made to the Report of the British Columbia Royal Commission on Mental Hygiene. The Commission finds no undue incidence of mental abnormality. Eugenic considerations are taken into account and segregation is recommended, but if not practicable then sterilization. More careful supervision of immigration is also desired.

It may be mentioned that there is now published quarterly in the EUGENICAL NEWS a bibliography of current eugenic literature which is of great value.

A.M.C.S.

GENETICS. Volume XII, No. 1. January 1927.

The effect of chromosome aberrations on development in Drosophila Melanogaster.

This long and valuable paper by Ju-Ghi Li from the Columbia University Laboratory deals with an extensive series of studies, by means of a new technique, of the stages of development at which different known deficiencies of portions of chromosomes exert their lethal effect. The Notch deficiencies of which at least 25 have been discovered are sexed linked. The deficient sex chromosome exerts a lethal effect on the male, and when homozygous on the female also; the heterozygous females are distinguishable by the characteristic notches on the wings. In Notch 8 the deficient region covers the loci of White and Abnormal which are three units apart, and, since crossing over is entirely eliminated in this region, there is reason to suppose that this portion of the chromosome is entirely wanting. In Notch 19 the deficient region is much smaller. When Notch females are mated half the daughters carry the Notch character, but all the sons are normal in this respect, and are only half as numerous as their sisters. It is evident that half the possible sons, those containing the deficient chromosome, have perished. By an experimental technique which allows of enumerating the eggs hatched and unhatched, and the pupæ which emerge or fail to emerge, the age of death may be studied; and by carrying this process through with matings involving inbred Notch females and their normal sisters the age of death of the Notch males may be determined. Dr. Li concludes that all the Notch males died as eggs, but an inspection of his tables suggests that the death rates of the larvæ also from the Notch mothers was distinctly the higher. It is evident that this has escaped notice owing to the adoption of the method of expressing the deaths at each stage as a percentage of the total eggs, and not as a percentage of the number surviving from the preceding Stage. Thus the tables give the percentage dying as larvæ as 10.7 for Notch 8 against a control value of 6.6, but this is apparently counterbalanced by the value of 11.2 for Notch 19 against a control value of 13.5. When, however, the

percentages are calculated on the surviving eggs, both experiments agree in giving a higher larval mortality to the offspring of Notch mothers, 15.3 against 7.1 in the case of Notch 8, and 19.3 against 15.1 in the case of Notch 19. It is worth while to call attention to this simple statistical fact, since by ignoring it there is a general bias towards antedating the deaths in all the experiments.

With a sex-linked lethal like the notches there is no avoiding the use of defective mothers, although this may exert a direct influence upon the mortality in the egg stage. The dominant lethal Plexate belonging to the second chromosome is also due to a deficiency, and in this case a more complete control is possible, since maternal effect may be eliminated by using Plexate females in the control (mated to normals), while the non-existence of any direct paternal effect may be demonstrated by a direct comparison of matings of Plexate and normal males to normal females. The comparison again shows death predominantly in the egg, although there is again an indication of a difference of larval mortality which escapes attention for the same reason as before. Most of the eggs which died were found in this case to have reached a distinctly advanced stage. Another deficiency examined was Minute-1, also in the second chromosome, and giving results very similar to Plexate, but with an enhanced maternal effect. This was traced to a proportion of abnormal eggs laid by Minute-1 females, which perish as eggs or young larvae, whether they contain Minute-1 or not.

A long deficiency in the second chromosome is known which is lethal when heterozygous; it can, however, be kept in stock in conjunction with an abnormal third chromosome to which a portion at least of the missing fragment has become attached. The combination with both chromosomes heterozygous is known as Pale owing to its specific effect in diluting the eosin eye colour. Of the nine possible combinations involving both chromosomes, five are lethal and four viable, namely Pale and Normal together with the combinations involving a single translocated fragment with no deficiency, and translated fragments in both chromosomes together with deficiency in one chromosome. The separate study of the stages at which the five different lethal types perish is evidently a matter of difficulty, and does not seem to have been completed. Only three of the viable types are used for mating, giving nine series of counts, the seven series to be obtained by using the fourth viable genotype not being available for comparison. The results indicate that the heterozygous deficiency kills in larval and late-larval, or "molt" stages, while the homozygous translocation seems somewhat less clearly to die as a larva, and to a small extent as an egg. The fate of the three classes of homozygous deficiencies cannot be distinctly determined from these data, though evidently much of this mortality occurs among larvae, and some apparently as pupae.

Much clearer results were obtained with the lethal effects of triplication or absence of the X chromosome. Using Morgan's stock of secondary non-disjunction in which two X chromosomes are permanently attached, two lethal classes XXX and YY occur simultaneously. This causes no confusion, for a clear 25% of extra mortality occurs in the egg, while a second 25% is divided between the larval and the pupal stages. Some of the pupae were sufficiently advanced for identification and proved to be XXX, so that evidently YY dies in the eggs, which in fact showed no development. None of the XXX super-females survived, which is ascribed to the action of a modifier killing in the larval stages, to which XXX may be particularly susceptible.

The complete absence of the small fourth chromosome is viable when heterozygous, but lethal when homozygous; the experiments in this case were evidently much complicated by maternal effects and modifiers, and the data afford no clear decision as to whether the lethals die as eggs or larvae. The presence of three fourth chromosomes is innocuous but four are lethal, the deaths here being distributed between the eggs and the larvae. Any additional mortality arising from such flies surviving into the pupal stage, would however have been masked by the pupal mortality due to the mutant "eyeless" in this group of experiments.

The summary diagram illustrating the numerous cases investigated shows clearly the tendency explained above to antedate the age at death, but this can scarcely detract from the value of this extensive and valuable research. Dr. Li is particularly to be congratulated upon the success of his technique in determining the age of death, and the success with which he has reared the more delicate of the viable forms to maturity. The increased care now bestowed upon the rearing of delicate human genotypes will doubtless bring to light similar phenomena, and illustrate the natural method by which prenatal and infantile mortality keeps within limits the spread of mutant defects.

R. A. FISHER.

GENETICS. Vol. 12. Pp. 59-83

Contains a paper by Helen Sorokin entitled *Cytological and Morphological investigations on gynodimorphic and normal forms of Ranunculus acris*.

A study of the variation of this common buttercup has been made from materials collected in Russia, Czechoslovakia and America. Various forms are known with small flowers and more or less abortive anthers. A study of such forms leads to the view that polymorphism in this species is a result of crosses between different polyploid forms with subsequent segregations. Unbalanced chromosome conditions result which may lead to the formation of types with different chromosome complements. Each of the types studied is found to have a chromosome group distinguished by differences in shape, size and number of the chromosomes and by the presence of particular satellites and constrictions on the chromosomes. The chromosome number ranges from 13 to 18. In one case, forms which were morphologically indistinguishable differed in their nuclear constitution. There is no correlation between the number of chromosomes and the degree of reduction of the anthers.

The same number of *Genetics* contains a paper by Hugh B. Smith on *Chromosome counts in wild species and cultivated varieties of the potato*. Polyploidy (multiple chromosome numbers) is already known to be a common phenomenon in Solanaceae. It is here shown that *Solanum Jamesii* from New Mexico has 12 (haploid) chromosomes, *S. chaconense* from Paraguay has 12, *S. Fendleri* from New Mexico, 24 and *S. demissum* from Mexico, 36. The cultivated varieties, McIntyre and Mc Cormick, have $n=24$, while Early Ohio is believed to have 40 and would therefore be octoploid. In another part of the paper, however, it is said to have $n=24$, and that the same number occurs in Early Rose and Russet Rural. Lutman reports that in root tips of Early Rose, Irish Cobbler, Green Mountain and Look-out Mountain the chromosome number is 36. The only conclusion from these conflicting statements is that polyploidy occurs in cultivated potatoes and may have been a factor in their development.

R. R. G.

GESCHLECHT UND GESELLSCHAFT.

1.

Justizrat Dr. Rosenthal, in discussing the development of Human Sex Relationships ("Entwicklungstendenzen der menschlichen Geschlechtsverbindungen, insbesondere der Ehe." GESCHLECHT UND GESELLSCHAFT. XIV. Nos. 4, 7, 8, p. 188, 310, 382) is of the opinion that the instincts of man were always stronger than those of woman, who was naturally inclined to hang back as the consequences weighed heavier on her, and that Polygamy and illegitimate births are the logical results. Further, man was always the aggressor fortified by a superior economic position. The present day tendency is towards mutual seduction which breaks down the checks established by law and causes permanent prostitution and a higher percentage of illegitimate births. With regard to marriage, he thinks permanent relationships were established when the results of negligence towards offspring proved injurious and defines it as a union for creating children for the good of the tribe, subject to social approval. Times have changed since then; there are other ways of gaining esteem, and procreation tends to be governed by economic needs.

2.

Rechtsanwalt Dr. Ludwig Kornel in an article on Heredity and Family Culture ("Vererbung, Familien-kultur und Selbstbestimmungspflicht." GESCHLECHT UND GESELLSCHAFT. XIV. 4/5, p. 205) deplores the general apathy in applying the lessons of heredity and the lack of responsibility towards the next generation. He considers the study of family histories an important duty of education and maintains that the schoolmaster should be made acquainted with the history of a family of every child when he enters school and should also encourage his pupils and take an interest in their ancestors whilst in the lower forms.

3.

Dr. Oskar Aust ("Über Socialhygiene." GESCHLECHT UND GESELLSCHAFT. XIV. 4/5, p. 194) discusses some of the problems suggested by an examination of Dr. A. Fischer's comprehensive volume "Grundriss der Sozial Hygiene." He condemns the conditions which prevent a third of the nation having sufficient children, whilst leaving large increases to the undesirable and recommends a more equitable system of taxation which would take into account the size of the family

and encourage an adequate number of children of healthy parents. He criticizes the financial policy of modern states as robber economy and attributes the downfall of the west and its culture to the biological ignorance of Financial Politicians, who, instead of making their care the interests of the future generation, are only concerned with enriching the Exchequer. G.G.C.

NATURE.

October, 1927.

In a considerable leading article the general tendency and policy of the British Association is reviewed. Attention is drawn to the ever increasing degree in which specialists speak for specialists instead of attempting to bring the interest and value of their work to the knowledge of their colleagues in other sides of science and to the intelligent lay-man. This point of view is brought forward none too soon, for it is quite obvious to those who mix with lay-people interested in science how far the great opportunity which was one of the aims in the foundation of the British Association is being lost now.

It might be possible to make a valuable suggestion of a critical nature on the more technical side. Congresses and gatherings of this type are becoming increasingly difficult to run, simply by reason of overcrowding and multiplication of work. Those who have suffered at recent Congresses must all feel that organisers should shoulder a much heavier responsibility in the matter of selection of subjects to be treated and that even a certain amount of selection in persons chosen and allowed to discuss might make it possible, occasionally, to get a real and valuable discussion. This has become practically impossible in Congresses to-day.

Page 507, 8.

In Professor Elliot Smith's review of two new books on: "Thought and the Brain," and "The Mind and its Mechanism" an interesting passage occurs which may be of use to some of our readers.

"This search for an elusive mind-stuff seems to have been prompted chiefly by McDougall's claims that 'the progress of our knowledge of the brain has shown conclusively that there exists no one part in which all sensory paths converge and which might be regarded as a *sensorium commune*' (p. 17), and further, 'that there exists in the brain no such physical medium of composition, and that the processes of the several sensory nerves simultaneously excited do not affect any common material medium to produce in it a complex physical resultant.' (p. 18).

"More than a quarter of a century ago I invented the term 'neopallium' for the definite cortical area where all sensory paths *do* converge and pour their currents into a continuous sheet of grey matter, which is a most definite and indubitable 'physical medium of composition.'"

Page 568.

In the little article on "Grouse Disease in Norway" we get a very good example quoted of the action of natural selection.

"Prof. Brinkmann points out that investigations in Norway during the last ten to fifteen years show that neither migrations, meteorological conditions, nor the toll taken by beasts of prey and by man can be considered as having had any decisive influence on the increase or decrease of the stock, but that the decrease must be due to the epizootics by which the stock has been ravaged from time to time. The only known epizootics of the willow grouse are those due to *coccidiosis*. Moreover, the known facts indicate that it is the disease in the young willow grouse which decimates the stock, and that improvement in the stock is correlated with a decrease in the disease.

"... the last bad period has extended from the year 1912-18 to the year 1925-26, which suggests that some new factor is exerting an influence. Prof. Brinkmann considers this new factor to be the heavy toll which has been taken of the Norwegian birds of prey. He regards as proved that birds of prey have a favourable effect on the stock of birds, as they take more of the sick than of the healthy birds. One result of the decimation of birds of prey was an enormous increase in the stock of willow grouse which culminated in 1911. But as no attempt was made to preserve the stock by having game-keepers to collect sick and dead game and to cleanse infected areas by burning the heather—which would have been impossible under Norwegian conditions—the result was a complete collapse of the stock."

Page 568.

We quote further from the account of Dr. Orton's work on "Sex-change in the Oyster."

"While a number of undoubted hermaphrodites exist, and some curious inter-sexual types, Dr. Orton confirms the view of Hoek and Mobius that the oyster is bisexual. But alternation of sex is the rule. The data clearly show that, except for a small percentage of abnormal individuals, all female oysters normally change their sex immediately after spawning and develop ripe sperm before their larvae are set free in the water. Functional maleness continues as a rule for one or two months, when the gonad becomes quiescent; after this period a proportion revert to the female condition and produce eggs. There is reason to suppose that a regular, probably annual, alternation of sex occurs normally.

"As to the cause of this swift change over from female to male, Dr. Orton suggests that it is due to a metabolic rhythm characteristic of the species, whereby the type of metabolism—perhaps predominantly a protein metabolism—associated with femaleness changes over to the type associated with maleness—perhaps a carbohydrate metabolism. The hypothesis is advanced that the accumulation of unusable products of the one kind of metabolism is the stimulus for the change over to the other.

"... He suggests that the X- and Y- chromosomes when present have the function of superimposing upon the general metabolism of the species a metabolism of a particular type to which the gonad responds by producing eggs or sperm. But the same sex-modification of metabolism may be brought about by other means than the sex-chromosomes, as by some fundamental change in the rhythm of metabolism related to the conditions of life."

NATIONAL HEALTH. July, 1927.

Evans, Barbara R. Certified Midwife. *Maternal Mortality from the Midwife's Point of View.*

That maternal mortality is much too high (about 4 per 1,000 births) and can be, and must be reduced, is now admitted by all who have given the subject serious attention. The Midwives' Institute has advised that there should be a post-mortem examination in the case of every woman dying in child-birth. It also advises that Medical Officers of Health should be asked to differentiate in their returns of maternal deaths between those cases which occurred in the practice of doctors and those which occurred in the practice of midwives. A third resolution of the Midwives' Board recommends that notification of birth cards should contain a space for the name of the person actually delivering the woman. Dr. J. S. Fairbairn has for many years urged that the stationary character of the maternal mortality rate is due, at least in part, to the increasing use of forceps. He advises that normal midwifery should be handed over to the midwife, whose function it should be "to wait on Nature." The mortality in the practice of the Queen Victoria Jubilee Nurses has been approximately half that of the general rate in the country—the inference being that the services of well-trained midwives are of the highest value, but even in this service the forceps rate (6 per cent.) is much too high. In the practice of the East End Mother's Home the forceps rate is only 2 per cent., and the mortality rate considerably under 1 per 1000.

The present high mortality rate in labour is due to the following causes:—(1) the lack of sufficient accommodation in Maternity Hospitals. Happily this matter is now receiving somewhat belated attention. Additional accommodation has recently been provided in London, Liverpool, Birmingham, Edinburgh, and other centres, but the accommodation is still quite inadequate. Probably no form of hospital service would yield a richer harvest than adequate accommodation for maternity cases. (2) Bad midwifery and especially the too frequent use of the forceps. (3) Inadequate training of medical students in obstetrics. All these defects are remediable. There is no doubt that maternal mortality could easily be reduced to one third or even one quarter of the present figure. J.A.L.

May, 1927.

Pritchard, Eric., M.D., F.R.C.P. *The Pros and Cons of Contraception.*

The subject of contraception or birth control is a very important one both as a factor in married life and parenthood and also from the standpoint of imperial and national interests. It may shortly become a subject of party and political

controversy. Already a demand has been made in Parliament that contraceptive methods should be taught in infant welfare centres which are supported by Government grants. The subject has recently attained prominence by the publication of a series of essays by medical writers (*Medical Views on Birth Control*, published by Martin Hopkinson & Co.) who are on the whole hostile to this practice. But medical opinion is much divided on the subject and many members of the medical profession favour some form of birth control. The writer was a member of the National Birth Control Commission (1918—1922) and came to the conclusion that the battle for and against birth control was a drawn one. Dr. Pritchard deals especially with the influence of contraceptive methods on children who are born under conditions of the voluntary limitation of the size of families. He has seen a large number of infants who have sustained damage due to unsuccessful use of abortifacients but none who have been damaged by the previous use of contraceptive expedients, mechanical, chemical, or manipulative. Some of the finest children that he has examined have been members of families limited by one or other of these means. Apart from this particular issue he professes to have an open mind upon the general question of birth control. He points out that birth control is widespread amongst civilised nations and is regarded by many as a chief cause, perhaps the chief cause, of the rapid decline in the birth-rate which is in progress in all the more advanced nations. The birth rate in England in the year 1850 was 33 per 1000. The present rate is 17.8. The rate in Australia was 44 in the year 1860, and had fallen to 23 in the year 1919. Other nations show a parallel reduction. The remarkable fact is that this decline is practically more or less uniform in most civilised countries. There are those who hold that we are witnessing one of the "natural cycles of oscillations in fertility," and that civilisation involves a decline in a natural process depending on biological laws which are still obscure. The question at issue is "whether the artificial control of conception is justifiable or not on the grounds of morality, or, of human, national, social, or individual expediency." Whether an increase of population is desirable or not is a question of much difficulty, but most people are agreed that, if the population of the world is to be limited at all, it should be limited as regards the inferior and not the superior races and elements of society. But the unfortunate fact is that the birthrate amongst the slum population is approximately double that amongst the most favoured classes, while the professional classes, which contain the cream of the intellectual capacity of the nation, have the lowest record of all. Contraceptive methods are practised chiefly by the educated classes; rather than by the ignorant and careless, which is a disquieting element in the problem.

Dr. Pritchard does not share the views of many medical men that contraceptives are injurious to the mother, but this point is not to be lightly dismissed. Some of these methods are certainly fraught with risk, and it is a grave question whether, if physical injury is avoided, psychical harm may not ensue. This is admitted by Dr. Pritchard.

The question of birth control is not merely a biological or economic problem. Religious, moral, and sentimental considerations come into action. The Catholic Church is resolutely opposed to birth control. Other churches are hostile or hesitating in their attitude. The medical profession is divided in opinion. No one seriously denies that there are women for whom parturition involves grave dangers, and that in such cases the use of contraceptives is amply justified, but the medical profession must make up its mind on its general attitude on this question. It is well known and quite indisputable that too frequent births at short intervals are injurious to the mother and probably to the children. Is birth control justifiable in such cases? If contraceptives are admissible, what are their dangers, and how far are these dangers preventable?

The economic argument for birth control is the one which commands most attention. It is obviously most undesirable that persons in the lower strata of society should have large families which they cannot hope to rear and to educate under conditions which give the children a fair chance of health, comfort, and moral and intellectual development.

When all is said and done, we need not shut our eyes to the fact that there are many people, perhaps the pick of the race, to whom the very idea of birth control is simply revolting. Time will show whether this feeling is likely to endure.

J.A.L.

REVUE DE L'INSTITUT DE SOCIOLOGIE.

March, 1926. Instituts Solvay, Brussels.

M. Paul Descamps, in "*Les diverses formes du mariage chez les sauvages*" (pp. 231-252), writes a somewhat mechanical analysis of various forms of marriage among the uncivilised.

M. D. Warnotte continues his study of the *Sociological Origins of Contractual Obligation*, examining the institutions of the *pollatch* and the *kula* (pp. 253-287).

M. Van Gennep, in "*Le Cycle de Pâques dans les coutumes populaires de la Savoie*," arrives at a conclusion important for the sociologist. Examining the distribution in Savoy of the Easter cycle of customs, as formerly of the Lent, Carnival, May, and Saint-John cycles, he finds that the customs present a number of strictly localised variations, and that these localisations cannot be correlated with the other elements of collective life in Savoy—races and tribes, political, ecclesiastical, economic and linguistic divisions. "It must be admitted that folklore, in belief and in practice, develops on an independent plan of its own."

B.A.

REVUE DE L'UNIVERSITE DE BRUXELLES.

December, 1926—January, 1927.

M. Henri Laurent gives a valuable résumé (pp. 233-246) of the admirable work of M. G. Des Marez, "*Le problème de la colonisation franque et du régime agraire dans la Basse-Belgique*" (Académie royale de Belgique. Classe de Lettres et des Sciences morales et politiques. Mémoires. Collection in-4to. Deuxième série, tome IX. Bruxelles, Hayez, 1926).

B.A.

SOCIAL FORCES.

March, 1927. (English agents, Messrs. Baillière, Tindall & Cox.)

Carver, T. N. *The Supposed Necessity for an Industrial Reserve Army*. A well reasoned attack upon the theory that a large supply of cheap labour, with a reserve army of unemployed, is necessary to the capitalistic system. The author implies, rather than argues, that a sane control of population is an essential factor in prosperity. He also grasps the qualitative aspect of population, pointing out that morons are not only a drag upon industry, but also, through over-reproduction, creators of unemployment and poverty.

June, 1927. Vol. v. No. 4.

The section headed "Biology and Society" contains no original articles, but some admirable book reviews. It is rather remarkable, therefore, that throughout the rest of the volume only one writer on social problems seems to have realised even the possibility of a biological aspect. He, Mr. J. M. Gillette, writing on *Nature and Limits of Social Phenomena*, dismisses it as unimportant since "very similar populations biologically give rise to most dissimilar societies." A specific instance would here be useful. But in any case the argument is unsound, since identical organisms will naturally develop differently in some degree if subjected to different influences.

E.M.

THE SOUTH AFRICAN JOURNAL OF SCIENCE.

Vol. xviii. December, 1926.

Jones, J. D. Rheinalt. *The Need of a scientific basis for South African Native Policy*.

It may be that if the advice and warnings of John Philip had been heeded in the earlier years of the nineteenth century we should long ago have had that segregation of the races for which the hearts of some are panting to-day, but we should prove ourselves less wise than he if we now took his policy and tried to apply it blindly merely because history has proved him to have been more nearly right than his opponents a hundred years ago. It is fortunate that the South African Universities are now being organised to understand the study of Native Life. A discussion of the subject leads to two possible but mutually exclusive conclusions:—

(a) The difference between Europeans and Bantu is biologically so great that identity of mental conceptions can never be possible: there can never be a civilization that is common to both of them.

(b) The difference is one that can be reduced or eradicated by external in-

fluences. In this view the Bantu can assimilate European ideas sufficiently to enable them to adjust themselves to the intellectual requirements of a civilisation which is becoming more and more dependent upon an implicit acceptance of the uniform working of natural law. The writer considers that Native Policy should aim at surrounding and permeating native life with all the civilising agencies which enrich our own life.

F.R.

Crime and Punishment. Norman, H. E.

Centuries of civilising processes have developed in man the social instinct as a greater force than all the other tendencies and inclinations. In the interests of the race men are steadily being taught to control the terrific instinct of sex. The author believes that nearly 1 per cent. of the entire population will be found to be incapable of managing themselves without assistance from the state. Scientific research should teach us what steps are desirable in order to remove permanently from social life the type which though possessed often of clear perceptions of duty and responsibility is yet liable to emotional disturbances and lack of control. Mr. Norman wishes that on every man's income tax paper there could be printed in large clear type "Income Tax, 1s. in the £ of which? is for the maintenance of the diseased, and unfit and inefficient, paupers, prostitutes, criminals and their children."

The oestrous cycle of the Baboon. Gear, H. S.

The study of the baboon shows that this animal, a member of the same group, the Primates, as man, has a sexual cycle comparable with that of other mammals, consequently it is to be expected that the human cycle can be correlated with the common plan.

Some Reflections on Population. Roberts, A. W.

With the single exception of Japan, there is no other than the white race showing signs of growth, of vitality and of progress. Japan's renaissance is due almost entirely to the nation entering upon an industrial age. When that energy has spent itself, and there are signs that it is already doing so, the race will again fall back into the somnolence of the immemorial East. The author concludes by saying "I offer this paper as a contribution to knowledge that is much needed these days, as an aid to a certain quietness of mind, to the furthering of a kindly consideration of less favoured people, to a definite assurance in spirit of our own high calling."

The Place of Psychology in Vocational Guidance, and some practical suggestions. Livie-Noble, F. S.

South Africa is a young country, and should take advantage of the experience of older countries so as to avoid the economic wastage and the labour troubles which arise when square pegs are put into round hole occupations. It is of great importance that such investigations should be made as would throw light on the *inclinations* of the individual. Anthropometric examination seems to be valueless as regards determination of abilities, but this method, together with medical examination, should be employed so as to discover physical peculiarities which render inadvisable certain types of activity.

The Question of the Teaching of Animal Biology in High Schools in the Transvaal. Fantham, H. B.

It is necessary for children to learn by observation of the world of nature (of which they are a part) in order to understand the workings of the community on the one hand and their own constitution and potentialities on the other. Thus they will learn to live more healthfully and happily. A study of animal life by boys and girls alike is essential. Animals are much nearer to man, and children tend to take more interest in them than in plants. The study of an ant colony is taken as an example as making more appeal than would the study of a plant community such as a wood.

F.R.

STATISTICAL BULLETIN.

Metropolitan Life Assurance Company. Feb., 1927.

The menace of automobiles to child life is brought out by the fact that in 1925 measles and scarlet fever caused the deaths of 4,342 Children in 41 states, whereas in the same area automobiles killed 4,166 children or nearly as many. Looking more closely into the figures it appears that these accidents mostly occur among young children. The facts are a good example of the possibility of a new killing agency suddenly coming into great prominence and thus changing the direction of selection.

Suicide is practically negligible under the age of 15. Between the ages of 15 and 20 it assumes a certain importance, but has recently shown a downward trend. Great publicity is given to cases of suicide among the young and the extent is unduly exaggerated.

A.M.C.S.

WORLD TO-DAY. May, 1927.

Wiggam, Albert E. *The Rising Tide of Degeneracy.*

The words 'proof' and 'prooved' are used a little more freely in this article than strict science would justify, and the author appears to attach rather too much value to the researches of Dr. Woods. But on the whole "The Rising Tide of Degeneracy" is an excellent and soundly eugenic piece of writing, vigorously and clearly expressed, and with the emphasis laid, not on heredity, but on natural—and social—selection.

E.M.

OFFICE NEWS.

In spite of the growing number of Summer Schools and Vacation Courses, Eugenic activity in this direction is not increasing, probably because each group meets for a specific purpose, and finds the time of its gathering all too short.

A certain amount of the energies of the Office have been concentrated on co-operation in the International meetings at which Eugenists figured.

We have to record very warm thanks to several volunteers who have been of great assistance during the holiday period, when the Office was short handed and work was nevertheless continuous.

Members and fellows of the Society will learn with regret that Mrs. Cartwright has accepted a statistical appointment with Messrs. Rowntree, in York, and will, therefore, only rarely be able to visit London. She has worked for four years with Mr. Ladbetter, and in addition to her research we owe her much for constant help when the Office was hard pressed, and also in designing and executing very helpful diagrams for propaganda work.

WORLD POPULATION CONFERENCE, GENEVA.

In an interesting and unconventional way, the Eugenic Society has been closely associated with this courageous movement. The idea that population problems have reached a stage warranting study from an international point of view took root in the United States. Very early in this year, a proposal to hold a conference, calling on scientists to make such a study, was brought before English economists and biologists by a small delegation from the United States group. The suggestion found immediate and hearty response and an Advisory Council was quickly formed with representatives of European countries, and including the American leaders of the movement and one or two sociologists from the East.

Finance, which is always the crux of such a venture, was generously carried by the Americans. Mr. Chance acted as first treasurer and succeeded in raising a considerable contribution in England. Mr. J. N. Slee took over the Treasurership later in Geneva and made possible a generous expenditure on printing and hospitality which so often is not possible.

Sir Bernard Mallet undertook the Chairmanship of the Committee in London which mainly arranged the programme for discussions, and presided over the Congress.

Population problems have so long been regarded as falling only within the domain of two groups of people—(a) Statisticians and economists and (b) Birth-control and anti-birth-control propagandists, that up to the very last moment it was predicted that a really scientific attack would not be possible. This first attempt however gives good hope of bringing together now, and for the future, serious students to secure on one side more practical, and on the other side more dispassionate study and discussion.

The Conference opened on Tuesday, August 30th with enrolments which ran up to 300 and the participants were received most charmingly in the evening by Professor Rappard in the Palais Eynard. He, as rector represented the University of Geneva, and spoke also on behalf of the Republic, the Canton and the City.

Business began early on the morning of the 31st with discussion on "The Biological Bases of Population Growth." (Prof. Raymond Pearl.)

Sir Bernard Mallet presided (as President of the Congress) in this first Session and in a short introductory speech stressed the need for complete Registration of the Population as a necessary preliminary in all countries to the ascertainment of those data which are essential for accurate knowledge of population growth.

The plan adopted throughout was to have one main paper for each session printed beforehand which was taken as read; a certain number of specialists contributed their criticisms, and other scientists present were then invited to continue

the discussion. Biologists may have felt slightly discouraged to find that scientific men of another trend of thought found little but amusement in a careful study of the length of life and mortality under laboratory conditions of the little fruit fly. Those who know this work however felt a sense of confidence in the future results of the painstaking and careful experiments described and still being prosecuted in the Johns Hopkins Institute. Sir Bernard Mallet, who was President of the Conference, was in the Chair at this discussion. Dr. Fisher pointed out the large discrepancy between the theory and the actual trend of population in Great Britain. Mr. J. B. S. Haldane made an attack from the paucity of census figures. Dr. Glover defended the results of the work with comparison of data from insurance companies. Dr. Netusil defended the mathematical aspects of the problem. Dr. Belehradsek gave some figures from Czecho-Slovakia. Dr. Goldschmidt took up laboratory details of the work. Miss Mabel Buer reminded the audience that the effect of economic changes on population would only be observable after a considerable 'lag' in time necessitating the historical angle of study in these questions. Dr. Crew spoke on the point of the apparently mysterious reduction in fertility with increased density, and suggested that the theory of selection would provide the answer. The rapidly increasing fly population was obviously removed from selective agencies and would therefore in a few generations contain almost equal proportions of highly fertile and relatively infertile stocks. Dr. Rappard emphasised the criticism made by Mr. Haldane and Dr. Hersch; and Dr. Halliday Sutherland in a lucid and interesting paper, suggested that secondary variables as contributing to mortality should be sought. He maintained the Darwinian outlook. Professor Huxley asked whether effects of density have a common biological basis over a wide range of organisms. Professor Pearl replied to the more crucial points brought forward and in answer to Professor Huxley, expressed his view that the effects will be quantitatively and qualitatively different in different organisms.

In the afternoon, Dr. Fairchild and Dr. East introduced the economic side of the problem, one on "optimum population" and the other on "Food Supply." The former question is one on which so little clear writing has as yet been published that it was from some points of view, the most interesting session of the Conference. An enormous number of people desired to ask questions and contribute opinions and this curtailed the time for each speech so much that the afternoon gave an impression of the need for clear thought more than anything else. Dr. Kantadas contributed an interesting series of figures from India. Already on this point a wide divergence of tendency between Latins and Saxons became apparent and feeling grew high as speaker after speaker in impassioned French pleaded for higher and ever higher birth rates. The Conference is much to be congratulated on the fact that actual propaganda was carefully, if thinly, veiled.

Thursday morning was devoted to discussing "Differential Fertility" using that term in the more familiar and restricted sense of fertility in social classes. Professor Huxley presided and the opening paper was by Professor Carr-Saunders. Interesting studies from a number of European countries were provided; for Italy, Professor Gini; for Holland, Dr. Methorst; for Germany, Dr. Grotian; for France by M. Lucien March. Dr. Edin gave an interesting statement from Stockholm where he alleged the working-class group to have a fertility 25 per cent. lower than that of the upper classes. It was most noticeable that in the main, the European contributors regarded the present-day figures as revealing a permanent condition rather than one of the moment. Dr. David Heron and Miss Buer called attention to historical indications which would lead to the conclusion that the present condition is a reversal of that which obtained previously and might well be regarded as normal growth in historic times. It might indeed appear as if the Stockholm condition would give an accurate picture of European populations prior to the industrial revolution. A large number of speakers took part in discussion. In his reply, Professor Carr-Saunders once more emphasised the data now available as to the psychological difference between social classes. Dr. Little presided in the afternoon when discussion on fertility and sterility was introduced by Dr. Crew's paper. His study was mainly physiological and called out a number of medical contributions amongst which may be mentioned that of Dr. McCann.

In his reply, Dr. Crew took up the suggestion of Captain Pitt-Rivers that the effective mating sex-ratio may be an indication of growing or waning reproductive power, as being the most interesting contribution. The psychological aspects of the question were brought forward by Professor Roswell-Johnson who is making a detailed study of the problem in the United States and elsewhere.

Friday morning was opened by Monsieur Albert Thomas who introduced "Migration and its Control." He outlined the opposing points of view of those new nations which were still somewhat undeveloped territorially and which desired to reserve territory for their own posterity and the outlook of those nations both in the Far East and in Europe who are already feeling the pressure of over-population. Monsieur Mahaim presided. A large number of persons desired to speak and it was found necessary to carry on the discussion for the first hour of the afternoon session. The position was rather wittily summarised by a contributor who remarked that it was the group which preached population growth and practised population control (i.e. the Latins) who called with passion for an open door, while those races which were restricting their birth-rate stood for safeguarding the racial aspects of nationality.

Dr. Goldschmidt took the Chair during the afternoon when Mr. E. J. Lidbetter showed an interesting sample of his pedigrees of socially inadequate groups. He maintained that comparatively few family stocks probably provided the great burden of inherent defectiveness in the community. An avalanche of criticism greeted this pedigree study, one and all assuming that the defects demonstrated were due to environmental conditions and not to heredity. Dr. Davenport and English speakers replied with a description of the control studies which demonstrated the inborn nature of much of the misery observed.

The Conference was brought to a close by a description of the fine Race Biological Institute, which has been established and subsidised by the State in Sweden, from the Director, Professor Lundborg. It was to be deplored that time did not allow of greater attention being paid to this important paper and Eugenists could only hope that the outlook of scientific study of the various problems presenting themselves will result in such institutions being formed eventually as a regular and necessary part of the government of other states.

A dinner and dance that evening was the last public function of the Conference and your reporter had never previously had the good fortune to listen to such excellent after-dinner speeches; but the interest of the evening focussed on the opportunity which the President of the Congress, Sir Bernard Mallet, took of acknowledging the tremendous part played by Mrs. Margaret Sanger in the Conference. Long before anything was heard of the project in Europe, she was working for it in the United States and for the whole of this year, she has given her time to the executive side both in initiating broad lines of work and in organising detail. All who had had this opportunity of becoming acquainted with her work, her character and her breadth of outlook, took this opportunity of showing their enthusiastic appreciation.

On Saturday morning, a private business meeting was held under the Chairmanship of Professor Pearl, in which it was decided to attempt to form a permanent organisation for the study of population problems from the scientific point of view. A holding Committee was chosen to do the initial work.

We may well hope that this wider aspect of our aims and objects will give a real stimulus to Eugenic work in England and members' attention is called to the imminent publication of the Conference Report, a work which will contain documents which are all of interest and importance to our Science.

ANNUAL MEETING OF THE EUGENICS FEDERATION.

The International Federation of Eugenics Organisations was fortunate in meeting this year at Amsterdam, by kind invitation of the Presidents of the Congress of the Institut International d'Anthropologie, concurrently with the International Congress. Dr. Van Herwerden, who with Professor Gini was one of the Vice-Presidents for this year, was mainly responsible for the arrangements made for the Federation's meetings and had very kindly secured a most beautiful room in the Colonial Institute in which the Congress was located. This Institute is a new and splendid building, consisting not only of a special Museum, but of laboratories, lecture halls and theatres, with a large entrance which made a most beautiful setting to the gathering there held.

The Eugenics Federation had its first session on Tuesday morning, 20th September, 1927. Major Darwin presided, and Dr. Govaerts, Dr. Van Herwerden, Dr. Davenport, Dr. Frets, Dr. Enschedé, Professor Gini and Professor Nilsson-Ehle were present, together with other members attending for the first time, namely Dr. Ploetz and Dr. Krohne, Dr. Schlaginhaufen, and the representative of the Polish Society, whose welcome presence added very much to the interest of the occasion.

In view of Major Darwin's retirement, Dr. Davenport presented on behalf of his Committee a re-draft of the Federation Rules, and with Dr. Ploetz and Professor Gini formed a small Committee to word the alterations according to the desire of the members present.

The second session was held on the following day, Wednesday, at 4-0 o'clock, and the Rules as amended were then formally passed. Dr. Davenport was elected President, and Dr. Mjoen proposed that Major Darwin be elected as Honorary President, with the support of Professor Gini and Dr. Van Herwerden. These elections were carried unanimously with acclamation.

The Vice-Presidents for the ensuing year were Dr. Ploetz and Dr. Schlaginhausen. Dr. Govaerts was re-elected Secretary for a further period of a year and Mrs. Hodson, F.L.S. was appointed Administrative Secretary.

Some further business was transacted which will be of interest to Eugenists in all countries. A resolution was passed empowering the President to form a Committee of members of the Federation and others for research on miscenegation. The Congress showed how very much work upon this important topic is already in progress, but it was generally felt that more would be achieved if researchers who were working on very similar lines could by reference to some regular group scheme obtain their data in an absolutely comparable manner; and further, it is greatly hoped that team-work may be promoted (similar to the work under the Eugenics Record Office in the West Indies) bringing to bear on the same individuals both anthropological, psychological and physiological investigations.

Another point of general interest was the keen desire expressed by members of the Federation to get in touch with the new work proposed at the Geneva Conference on World Population problems, and the President was asked to do what he could to promote co-operation with any new group which may materialise from that meeting. Dr. Mjoen brought a letter given to him by Professor Irving Fisher in Berlin, offering financial support if the Federation could see its way to form a Committee for the investigation of eugenic and dysgenic effects of War. This matter was thoroughly discussed, and a resolution passed authorising Dr. Davenport, in consultation with Professor Irving Fisher, to form such a Committee, and accepting most gratefully this offered support for the expenses of beginning the work.

Professor Gini brought the welcome news from Italy that he has been enabled to commence work on the first volume of the *Bibliothèque Internationale d'Eugénique*. The members present congratulated him on his persistent efforts in this direction.

Dr. Mjoen reported considerable advance in the work of the Programme Committee, which has now circulated a scheme to a number of the Eugenic Societies for criticism. The Russian Society has already sent in a full document which will be published in some of the Eugenic journals.

The Assistant Secretary reported that the Memorandum on Registration presented by Sir Bernard Mallet in Paris had been mentioned at the World Population Conference in Geneva, and that Dr. Methorst had there undertaken to bring it forward to the Congress of the International Institute of Statistics at Cairo this winter. There was such a general consensus of opinion in favour of this move amongst the Geneva Delegates that the Federation may reasonably hope that some action may result in more than one country.

The Conference of the Federation was held jointly with the section of Heredity of Man and Eugenics of the Anthropological Congress, and took place in the Tropical Diseases Laboratory of the Colonial Institute on the morning of Thursday, 22nd September. Major Darwin presided, and the first paper read was by Professor Nilsson-Ehle, on the general topic of Race-crossing. His paper was illustrated with many lantern slides, and gave a most lucid account of the whole position to-day in regard to this branch of heredity research. He emphasized the point that the hybrids produced from widely divergent parents result in some individuals having none of the valuable characters of the two races, a few having most of these characters, and a large group which will contain some of the valuable and many of the least desirable characters of both. He went on to show that it is in the crossing of very closely allied parent types that superior hybrid stocks can be looked for as a result.

Dr. Davenport followed with a general survey of the best-known human crosses between widely divergent races, and showed a number of slides. This paper was in effect a resumé of the best-known investigations.

Dr. Mjoen's paper dealt more specifically with his investigations on the cross

between the Northern Mongolian races and Nordics, of which he showed a number of types with excellent illustrations. He further gave the broad results of the extent to which hybrid characters can be prognosticated from the characters in the collaterals of the parents. These results were drawn from his wide investigations into the inheritance of musical ability, and brought before the Conference the value and importance of psychological investigations in this connexion.

Several of those present spoke in discussion, notably Mr. Harold Peake and Professor Elliot Smith.

It is the intention of the Dutch Committee to secure the publication of these papers in full, and readers of Eugenic literature will find references to this publication in due course. Those not present can only gain an idea of the immense interest of this occasion by reference to the work of the Congress in general. A number of papers were presented on race mixture, notably some very interesting pedigrees of White \times Red Indian crosses by Professor Ruggles Gates. But no part of the Congress exceeded in volume and value the Sessions devoted to the study of Blood Groups. An enormous amount of work is being done all over the world in this interesting new field. Professor Lattes made a highly important contribution regarding technique which workers in this field should study with care.

Professor Hirschfeld presided at the last of the series of sessions, and also presented a very complete and important paper on his own research. It is interesting to remember that this began during the War, and was largely carried out amongst troops in the field. It must indeed have been an enthralling adventure, and Professor Hirschfeld must feel the greatest satisfaction in seeing his laborious early attempts now bearing fruit of so much value to science.

The Federation was handsomely entertained by the Dutch Committee at a luncheon on Wednesday, at which were present not only the two Presidents of the Congress, but also the British Ambassador and a number of Dutch Ministers or their representatives. Dr. Frets, President of the Dutch Society, presided, and made a most charming speech, ending as follows:—

“Major Leonard Darwin, President of the International Federation of Eugenic Organisations I have mentioned how much we feel it an honour that the members of the International Federation are in our midst, and I have with a few words sketched the task of eugenics. I believe that therein I was fairly well in accordance with your ideas as laid down, based on the experience of years, in your book: ‘The Need for Eugenic Reform.’

Mr. President, where I said that our Committee is pleased to see the members of the International Federation assembled in our country, I wish to express this feeling more in particular towards you and Mrs. Darwin, towards you because you are the son of Charles Darwin, and because it will be the last time that you preside at this meeting.

We are happy to see here representing your compatriots, Lord Granville, the English Ambassador.

Dear Mr. Chairman, every member of our International Commission must have felt the value of your personality in the intercourse with you. So it was with me when I met you, in Lund, for the first time. In Lund, at a gathering like this, you spoke about the inner motive that prompted you to accept the Chairmanship of the English Eugenic Society, and that this motive was the remembrance of your father, the consciousness that your father would have wished it so.

In the dedication to your father in your so very instructive book ‘The Need for Eugenic Reform’ you also express this thought, namely, to make your father’s work of service to mankind.

When I heard you saying this in Lund, I was reminded of your father’s autobiography, out of which I want to bring forward two points.

Firstly, your father relates that when a boy, he had a strong taste for angling, fishing. His friends told him that he could kill the worms with salt and water; from that time he never spitted a living worm, though at the expense probably of some loss of success.

This mark of sensitivity we may call, if you allow it, a race character.

Secondly, in the latter part of the autobiography the following words have impressed me. A short time before his death your father writes: ‘I feel no remorse from having committed any great sin, but have often and often regretted that I have not done more direct good to my fellow creatures.’

These words were in my mind immediately when in Lund I heard you talking about the direction your father had imparted to your life.

Here I think we touch upon a family character.

Where you, Mr. Chairman, intend to leave us, I will conclude by wishing you and Mrs. Darwin happy years yet to come, and for our International Federation of Eugenic Organisations, I want to express the hope that this desire of yours, to serve mankind, will follow us and become a good tradition in our Federation. Then our International Federation of Eugenics Organisations will flourish."

Major Darwin replied in a vigorous and delightful speech.

The Congress provided entertainment for its guests in all the hours not filled by the work of the Sessions. The members of the Amsterdam Bourse gave a reception on the afternoon of Tuesday, September 20th, and the same evening an exhibition of Javanese dancing was given in the Colonial Institution, followed by a reception.

Possibly the most notable excursion was on the afternoon of Thursday to Haarlem, when Professor du Bois showed the precious *Pithecanthropos erectus*, comparing it with a number of primate and human remains. It was a wonderful gathering of anthropologists and no one who was privileged to be there will have regarded it as less than an adventure to see this specimen exhibited by the discoverer.

The major business of the Congress was brought to a close at a banquet on Saturday evening, at which the Prince Consort was present, and the hospitable Dutch hosts excelled themselves in warmth of welcome; indeed those who were at Amsterdam must feel that this has been one of the most memorable of international meetings.

EXHIBITIONS.

Through the energy of a Scottish group, the Society was this year enabled, for the first time, to give an Exhibition at the meeting of the British Medical Association, Edinburgh. Dr. Helen Crew very kindly took charge of this, and the exhibits sent up from the Office were supplemented by heredity material from the Animal Breeding Research Department of the University.

For this occasion a considerable amount of fresh material on inherited disease has been got ready, so that the Society's Exhibition will, in future, be considerably enlarged.

Mr. Pease has sent us in a fine series of rabbit skins, showing coat and colour inheritance, and for the first time the fine series of beans, kindly grown by Professor Johannsen to demonstrate pure line inheritance, was shown.

The Society also had the great privilege of obtaining from Dr. Maude Slye, on loan, her fine series of charts and photographs, showing cancer inheritance and inherited immunity in mice. This is a most telling series, and we hope before long to have sufficient funds to make a series of our own charts based on her work.

The Society was honoured by an invitation from the Royal Agricultural Society to send an exhibit to the Annual Show, which was held at Newport, Monmouth. Mr. Eldon Moore demonstrated, and interest in the exhibits was so great as to attract a crowd which blocked the gangways. This leads us to hope that, if we can take part, in future, in local shows, we shall be seizing a really useful opportunity for educational work; a thousand pounds annually would cover the cost of such work.

July 5—8 Newport Royal Agricultural Show.

19—22 British Medical Association, Edinburgh.

MEETINGS.

July 19	Jarrow Members' Guild	MR. ELDON MOORE	"Animals and Men."
22	Rotary Club of Cambridge	.. DR. DRYSDALE	"Eugenics & Economics."
24	Victoria Road Men's Meeting, Leicester	.. THE SECRETARY	"1970. What is That to Us?"
26	Derby Diocesan Training College	.. DR. NEWTH	"Mental Inheritance."
27	Stoke Newington Labour Party (Women's Section)	.. THE SECRETARY	"Heredity."

- Aug. 9 Eastchurch Women's
Institute MISS POCOCK "Heredity."
- 11 Southwark Women's
Branch Labour Party THE SECRETARY "Heredity."
- 12 Oxford Univ. Extension
Students MAJOR DARWIN "Nature and Nurture."
- Sep. 28 Nottingham P.O. Whit-
ley Council .. DR. NEWTH "Mental Inheritance."

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- July 27—29 Bournemouth.
28—30 Addlestone.

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